Claims

1. Process for recovering argon by low-temperature separation of air in a rectification system, which has three rectifying sections arranged in series, whereby the first and the second as well as the second and third rectifying sections in each case are connected to one another on the gas and liquid sides, and whereby the second rectifying section has two subsections, which are not connected to one another on the gas and liquid sides and are flushed in a parallel manner, whereby a fluid that contains oxygen and argon is introduced into the first of two subsections and a stream that contains oxygen and argon is removed in the second of the two subsections, characterized in that the argon concentration in stream (13) that is removed in second subsection (7, 30) is between 15% and 50%, preferably between 15% and 40%, especially preferably between 20% and 35%.

2. Process according to claim 1, wherein the rectifying system has at least one air separation column (4) with three rectifying sections (19, 20, 21, 22) that are arranged in a series, whereby second rectifying section (20, 21) has a partition (5) that runs in lengthwise direction of the column, by which air separation column (4) is divided into a first subsection (6) and a second subsection (7) at the level of partition (5).

3. Process according to claim 1, wherein the rectifying system has at least a first air separation column (4) and a second column (30), which are connected at intermediate points of first air separation column (4) at their upper end and their lower end on the gas and liquid sides, whereby section (20, 21) that is placed between the intermediate points of the first air separation column and second column (30) form the two subsections.

4. Process according to claim 3, wherein stream (13) that contains oxygen and argon is removed from second column (30).

5. Process according to one of claims 1 to 4, wherein stream (13) that is removed from second subsection (7, 30) is fed to a crude argon column (14).

6. Process according to claim 5, wherein bottom liquid from crude argon column (14) is returned to second subsection (7, 30).

7. Process according to one of claims 5 or 6, wherein argon is obtained with a purity of more than 95%, preferably more than 98%, in crude argon column (14).

8. Process according to one of claims 5 to 7, wherein argon is obtained with an oxygen content of less than 10 ppm in crude argon column (14).

9. Process according to one of claims 5 to 8, wherein crude argon column (14) has more than 100, preferably 150 to 200 theoretical plates.

10. Process according to one of claims 1 to 9, wherein packings are used for rectification at least in part in rectifying sections (19, 20, 21, 22).

11. Process according to claim 10, wherein the fluid that contains oxygen and argon is collected in each case between two rectifying sections and/or distributed (23, 24, 25, 26, 27).

12. Process according to one of claims 1 to 9, wherein the fluid that contains oxygen and argon that rises in gaseous form in the rectifying system experiences the same pressure loss in first and in second subsections (6, 7).

13. Process according to one of claims 1 to 12, wherein the rectifying system has a pressure column (2) and a low-pressure column (4), whereby partition (5) is arranged in

low-pressure column (4), and whereby a fluid (3), concentrated with oxygen, from pressure column (2) is introduced into first subsection (6).